

ENTOMOLOGY.—A correction and two new races in *Graphognathus* (white-fringed beetles) (*Coleoptera: Curculionidae*).¹ L. L. BUCHANAN, U. S. Bureau of Entomology and Plant Quarantine. (Communicated by C. F. W. MUESEBECK.)

The name *Naupactus leucoloma* Boheman, or *Pantomorus (Graphognathus) leucoloma* (Boheman), has become familiar to entomologists of this country as specifying one of several closely related South American weevils, collectively known as white-fringed beetles, which are now established in the southeastern part of the United States. The recognition of the supposed *leucoloma* in North America dates from 1936, when I so identified specimens collected in that year near Svea, Fla. Through the courtesy of René Malaise, of the Stockholm Museum, I have recently had the opportunity of studying the type specimen of *Naupactus leucoloma* Boheman, and there can be no doubt that my 1936 identification was wrong and that this species, in its restricted sense at least, does not occur in the United States. As the "*leucoloma*" of North American entomological literature is now without a valid name, it is described as new in this paper. Another white-fringed beetle, discovered in North Carolina in 1942, is also described here for the first time.

Although no satisfactory way of classifying the white-fringed beetles as a whole has yet been worked out, it can be said that, of the seven distinguishable kinds present in the United States, two (*peregrinus* and *minor*) are sufficiently distinct to be regarded as species. The other five, however, along with the true *leucoloma* and many similar though still undescribed segregates from South America, exhibit exceedingly close and peculiarly involved relationships, and though these segregates are isolated from one another by parthenogenesis, it now seems evident that they are not species in the ordinary sense of the word; and in the present paper they are treated as races of the *leucoloma* complex. In addition, *Graphognathus*, formerly considered a subgenus of *Pantomorus*, is raised to generic rank. On such a plan the species and races of *Graphognathus* now known from the United States may be tabulated as

follows, the true *leucoloma* of Boheman being included for purposes of comparison:

1. Rostrum distinctly tapering anteriorly, eye more convex (Fig. 12), lateral costa of dorsum of rostrum feebly prominent and not overhanging side of rostrum; median dorsal groove of head and rostrum with its apical portion not or faintly carinate and at most about twice as wide as basal portion, the scales each side of posterior half of groove broadly subovate and lying transversely or transverso-obliquely and in general directed toward midline (Fig. 17); scales and setae along posterior half of midline of pronotum directed posteriorly (Fig. 25); scales on disc of elytra subcircular or broadly ovate and nearly covering surface, the striae lines scarcely perceptible; a narrow bevel present on apex of hind tibia (Fig. 21). Length, 7–10.5 mm. Southern MISSISSIPPI: Harrison, Hancock, Pearl River, Jackson, Stone, Forrest, Covington, Simpson, and Hinds Counties. Southern ALABAMA: Grand Bay, Theodore, and Mobile. *peregrinus* (Buchanan)
Rostrum not or less strongly tapering anteriorly, eye less convex (Figs. 9–11), lateral costa of dorsum of rostrum more prominent and more or less distinctly overhanging the side of rostrum just beneath it; median dorsal groove of head and rostrum with its apical portion carinate or not carinate and often considerably more than twice as wide as basal portion, the scales each side of posterior half of groove narrowly ovate to linear and lying longitudinally or longitudino-obliquely, the oblique ones directed toward side margins (Fig. 16); scales and setae along midline of pronotum directed anteriorly in general (Fig. 26); scales on disc of elytra oblong to broadly ovate and not covering surface so completely, the striae lines (except *pilosus*) more evident; hind tibia without distinct bevel (Fig. 22) except in *minor*. . . . 2
2. A distinct bevel present on apex of hind tibia (Fig. 20); setae on disc of pronotum appressed or nearly so; eye slightly less convex (Fig. 10); widened apical portion of rostral groove carinate; body shape characteristic (Fig. 2). Length 6.5–10.5 mm. Northwestern FLORIDA: Pensacola, Gonzalez, Cantonment, Bluff Springs, and Century. A single specimen at hand is labeled "Crestview, Fla.," but this locality is doubtful.
minor (Buchanan)
Bevel absent or virtually so (Fig. 22); setae on disc of pronotum, at least in part, sufficiently

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elevated to be easily perceptible and sometimes conspicuous; eye a little more convex (Figs. 9 and 11); rostral groove carinate or not carinate (*leucoloma* complex) 3

3. Rostrum subevenly tapering from base to apex (Fig. 9); elytral intervals broadly but distinctly convex; widened portion of rostral groove carinate; setae on disc of pronotum numerous, slantingly suberect, and rather conspicuous; scutellum slightly impressed; prevailing color rather dark, about as in *dubius* and *striatus*. Length of type 10.5 mm. Tucuman, Argentina. Not in United States. (Fig. 3) . . . *leucoloma leucoloma* (Boheman)

Rostrum not tapering as above (Fig. 11); elytral intervals less convex or flat; other characters differing with the race 4

4. Scales on disc of elytra, except on the short basal slope, subevenly spread over the intervals and stria rows, the latter thus being obscured; erect elytral setae a little longer and finer; rostral groove usually without carina, occasionally with a short, faint carina beginning at apex, but usually not extending posteriorly as far as middle of widened part of groove. Length 8–11.3 mm. Definitely known only from Monroe, Conecuh, and Wilcox Counties, Alabama. (Fig. 4)

leucoloma pilosus (Buchanan)

Scales on disc of elytra more concentrated on intervals than along stria rows, the latter, though often feebly defined, more evident than in *pilosus* and usually appearing to the unaided eye as parallel lines which are more or less distinctly darker than the intervals (Figs. 5–8); erect elytral setae a little shorter and stiffer; rostral groove carinate or not carinate, the carina, when present, usually longer than in *pilosus* 5

5. Rostral groove carinate anteriorly; stria lines usually a little darker and more distinct; prevailing color brownish, darker 6

Rostral groove not carinate; stria lines less distinct; prevailing color gray or gray-brown, lighter 7

6. Elytra more strongly widened posteriorly (Fig. 6), intervals 2 and 4 not or scarcely perceptibly paler than adjacent intervals; prothorax narrower (see paragraph following key); metasternum more convex (Fig. 24). Length 9–12.7 mm. Southeastern LOUISIANA: Many localities in St. Bernard, Plaquemines, Jefferson, Orleans, St. Tammany, Tangipahoa, East Baton Rouge, and Iberia Parishes. Southern MISSISSIPPI: Harrison, Pearl River, Lamar, Forrest, Jefferson Davis, Jones, and Hinds Counties. Southern ALABAMA: Luverne, Chilton, and Grand Bay. GEORGIA: Many localities between Cornelia on the north and Irwinville on the south, and between Columbus on the west and Sylvania on the east. SOUTH CAROLINA: Columbia. The localities Pensacola, Fla.,

and DeLisle, Miss. (one specimen each), require confirmation

leucoloma striatus (Buchanan)

Elytra little widened posteriorly, sides usually appearing subparallel (Fig. 5), intervals 2 and 4 in apical halves often paler than adjacent intervals, prothorax broader; metasternum less convex. Length 8.5–12.2 mm. Southern MISSISSIPPI: Moss Point (these specimens were formerly placed with *striatus*), Maxie, Hattiesburg, and Camp Shelby. Southern ALABAMA: Mobile, Toulmanville, Blakeley Island, Crichton, Prichard, Irvington, Foley, Peterman, Natchez, Buena Vista, Tunnel Springs, Martins Station, and Selma. Northwestern FLORIDA: Century. NORTH CAROLINA: Peachland, Marshville, Polkton, and Burgaw. A few specimens, not positively identifiable though probably belonging to *dubius*, are labeled "Nadawah" and "Neenah, Ala.," and "Gulfport, Miss."

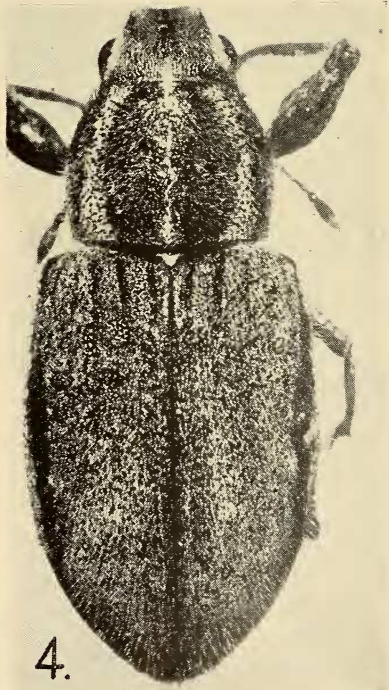
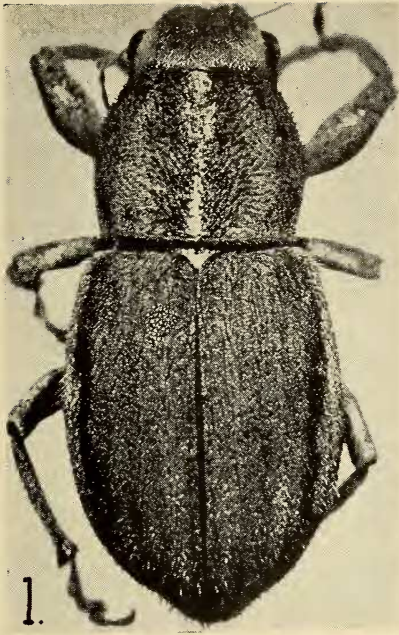
leucoloma dubius (Buchanan)

7. Size slightly smaller; scales and setae along midline of pronotum in general directed anteriorly or somewhat obliquely, a few of those in a small area about midpoint sometimes dearranged and pointing in various directions (Figs. 13 and 19); metasternum less convex (Fig. 23). Northwestern FLORIDA, southern ALABAMA, and southern MISSISSIPPI. *leucoloma fecundus*, new race
Size a little larger; scales and setae along midline of pronotum about as in *fecundus* except in a small area near midpoint where many of them often lie either transversely, or at least more strongly obliquely than in *fecundus* (Fig. 14); prothorax broader (see paragraph following key); metasternum slightly more convex. NORTH CAROLINA

leucoloma imitator, new race

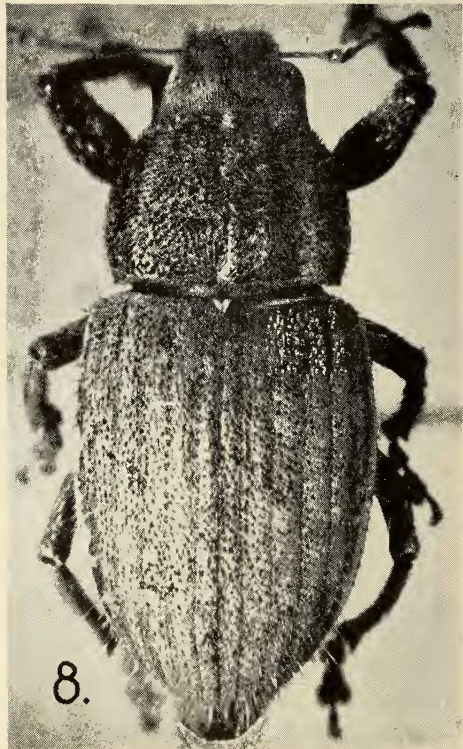
The mean ratio of the length of the prothorax divided by its breadth for the preceding five races is as follows, the figures in parenthesis indicating the number of specimens measured: *pilosus*, 0.800 (48); *striatus*, 0.828 (216); *dubius*, 0.801 (357); *fecundus*, 0.756 (408); *imitator*, 0.744 (256).

The distribution in South America of the white-fringed beetles present in the United States is still very imperfectly known. Three of them (*dubius*, *pilosus*, and *imitator*) have not been definitely recognized among the South American collections at hand. Of the others, a single old specimen of *striatus*, labeled "Cordoba" [Argentina], agrees closely with certain small specimens of this race from the United States; a specimen, almost certainly of *fecundus*, was collected at San Antonio, Uruguay,



GRAPHOGNATHUS

FIGS. 1-4.—1, *peregrinus*, Gulfport, Miss.; 2, *minor*, Cantonment, Fla.; 3, *leucoloma leucoloma*, type, Tucumán, Argentina; 4, *leucoloma pilosus*, Repton, Ala. Photographs by M. L. F. Foubert.



GRAPHOGNATHUS

FIGS. 5-8.—5, *leucoloma dubius*, Mobile, Ala.; 6, *leucoloma striatus*, New Orleans, La.; 7, *leucoloma fecundus*, Florida, Ala.; 8, *leucoloma imitator*, Wilmington, N. C. Photographs by M. L. F. Foubert.